

**TOWARD A LESS HARMFUL CIGARETTE, A Workshop Held at the  
World Conference on Smoking and Health, September 11-13, 1967.  
National Cancer Institute Monograph 28, June 1968.**

**SUMMARY OF WORKSHOP**

In 1964, the Surgeon General's Committee on Smoking and Health called for remedial measures to reduce the health hazard associated with cigarette smoking. One of these measures is the establishment of a less harmful cigarette.

The proceedings of the workshop dealing with this area indicated significant progress in the identification of factors in cigarette smoke that contribute to the health hazards as well as means of their reduction.

Since a dose-response relation is indicated for the number of cigarettes smoked and the incidence of diseases of the cardiovascular and pulmonary systems, anything that will reduce total smoke exposure is likely to be followed by a reduction in risk. Such a reduction may be expected more rapidly for cardiovascular than for neoplastic disease.

When considering myocardial infarction, the preponderance of evidence suggests that nicotine plays an essential role in its pathogenesis and that its reduction would be associated with a reduction in deaths from this disease. The effect of nicotine on myocardial infarction was attributed to its possible effects on blood coagulation and on mobilization of free fatty acids. The particulate matter in tobacco smoke is clearly carcinogenic to the experimental animal and specific carcinogenic and co-carcinogenic components have been identified. There was a body of opinion that the gaseous phase in cigarette smoke might also affect the pathogenesis of lung cancer and chronic pulmonary disease and that a reduction of all potential toxic substances should be accomplished. There was some disagreement as to the relative importance of various toxic substances in cigarette smoke, particularly as these affect man.

Adequate means for a practical lowering of "tar" and nicotine levels of cigarettes are already available. In fact, there has been a trend toward a quantitative reduction of these smoke constituents in American cigarettes during the past decade. Means are also available to reduce gaseous components.

The tobacco industry needs to be persuaded to manufacture less harmful cigarettes and to increase the acceptability of such cigarettes with that portion of the public that cannot give up smoking. Such measures include:

1. Regulatory standards for a cigarette to be called a "filter" cigarette.
2. Regulatory standards providing that a filter and the nonsmokable overwrap should be not less than 30 mm long.
3. Regulatory standards governing the yield of "tar" and nicotine and, possibly, other smoke components.
4. Regulatory listing on all packages of the "tar" and nicotine content and, perhaps in the future, of other deleterious substances.
5. Encouragement of the design of cigarettes that reduce the practice of inhalation.

It was suggested, based on extensive experimental data, that increased nitrate levels in tobacco would reduce the formation of carcinogenic hydrocarbons.

The workshop members expressed a desire for closer cooperation with each other. It was suggested that research workers interested in the problem of creating a less harmful cigarette form a work group composed of representatives from research groups of universities, industry, private institutions, and the U.S. Government. It is hoped that this group will keep in communication with the Task Forces on Lung Cancer and on Smoking and Health.

Some concern was expressed about claims for new filters or processes to reduce the health risk of cigarette smoking in cases where such claims have not been accompanied by well-documented scientific data. It was suggested that the Public Health Service establish a panel with the necessary scientific background and give it legal authority to protect patent rights in order to evaluate such claims.

Efforts must be continued to develop chemical and biological methodology to establish the relative importance of toxic substances in tobacco smoke and provide guidelines for permissible levels of these substances in cigarette smoke.

The ultimate proof of a less harmful cigarette must be the human experience. It was suggested—and it seems feasible—that a surveillance system be established in several major hospitals in the United States and abroad where the smoking habits of individuals with diseases now known to be associated with cigarette smoking would be recorded. Such records would include the brand of cigarettes smoked by each individual. In this manner the relative health risk associated with a particular type of cigarette could well be established. Members of the workshop agreed to initiate such a system, hopefully with the support of public health agencies.

Having observed man's apparent difficulty in giving up smoking and preventing youth from starting, it is evident that, for practical as well as academic reasons, work on the less harmful smoking products must be continued and extended. It represents one of the logical measures called for by the Surgeon General's Report. Members of the workshop believe that, if properly pursued and supported, and if its suggestions—many of which are practical today—materialize, this remedial measure will make its contribution to our common goal, the reduction, if not elimination, of all diseases linked to cigarette smoking. It is toward this goal that the Workshop, "Toward a Less Harmful Cigarette," hopes to have made a contribution.